

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments in which claims 1-6 and 8-16 are canceled and 7, 17 and 18 are amended. With entry of this amendment, claims 7, 17 and 18 are pending. This amendment changes and cancels claims in this application. A detailed listing of all claims that are, or were, in the application, is presented with an appropriate defined status identifier.

IDS

Applicants note that Examiner did not yet note that the reference of the International Search Report have been considered. In accordance with MPEP § 1893.03(g), a copy of which is reproduced below, applicants respectful request that in the next communication from the Office, the Examiner note that the references of the International Search Report have been considered.

When all the requirements for a national stage application have been completed, applicant is notified (Form PCT/DO/EO/903) of the acceptance of the application under 35 U.S.C. When all the requirements for a national stage application have been completed, applicant is notified (Form PCT/DO/EO/903) of the acceptance of the application under 35 U.S.C. 371, including an itemized list of the items received. The itemized list includes an indication of whether a copy of the international search report and copies of the references cited therein are present in the national stage file. The examiner will consider the documents cited in the international search report, without any further action by applicant under 37 CFR 1.97 and 1.98, when both the international search report and copies of the documents are indicated to be present in the national stage file.. 371, including an itemized list of the items received. The itemized list includes an indication of whether a copy of the international search report and copies of the references cited therein are present in the national stage file. *The examiner will consider the documents cited in the international search report, without any further action by applicant under 37 CFR 1.97 and 1.98, when both the international search report and copies of the documents are indicated to be present in the national stage file. The examiner will note the consideration in the first Office action.* (Emphasis added.)

Rejections Under 35 USC § 112, first paragraph

The amendments to the claims have rendered the rejection for lack of written description moot. Support for the recitation that the fiber bundles and thermoplastic resin fibers are arranged together in one direction is found in the present specification at, *inter alia*, page 19, lines 19-25, page 20, lines 14-17, and page 21, lines 2-4. Furthermore, Figures 3 and 4 show that the thermoplastic resin fibers 19 and 20 are arranged together with the reinforcing fibers 7 and 12 in one direction. See also the description at page 21, lines 2-6. Applicants further wish to point out that one of skill in the art would find it self evident that the terms bundle and bundle layer are nonwoven.

Rejections Under 35 USC § 103(a)

The only outstanding prior rejection against independent claim 7 is the rejection under JP 08-197,626 (“JP ‘626”) in view of U.S. Patent No. 5,308,424 to Sasaki et al. (“Sasaki”), and in further view of U.S. Patent No. 5,773,625 to Tsuchiya et al. (“Tsuchiya”). Applicants traverse this rejection for the following reasons.

JP’ 626

Although JP’ 626 describes use of a thermoplastic resin powder, JP’ 626 teaches nothing of use of a thermoplastic resin fiber as used in the present invention. Further, JP’ 626 teaches nothing of the claimed method wherein the reinforcing fiber bundles are fed together with the thermoplastic resin fibers so that the reinforcing fiber bundles are arranged in one direction together with the thermoplastic resin fibers. Also, JP’ 626 teaches nothing of the claimed method wherein the fiber bundle layers stacked in layers are bonded to each other with the thermoplastic resin fiber. Therefore, JP’ 626 does not suggest or motivate one to arrive at the present invention. Applicants contend that the two secondary references cited by the examiner do not remedy the defects of JP ‘626.

Tsuchiya

As seen from the abstract of Tsuchiya, this reference describes a nonwoven fabric wherein large fiber bundles of the fabric intersect one another, small fiber bundles thereof intersect one another among said large fiber bundles, and the fibers of the fiber bundles are being entangled with one another among the large fiber bundles, among the small fiber bundles and at the intersecting points of the fiber bundles. Thus, Tsuchiya describes a nonwoven fabric wherein the fiber bundles intersect with one another, and the fiber bundles are entangled with one another.

Therefore, similarly to JP’ 626, Tsuchiya teaches nothing of the claimed method wherein the reinforcing fiber bundles are fed together with the thermoplastic resin fibers so that the reinforcing fiber bundles are arranged in one direction together with the thermoplastic resin fibers.

Also, Tsuchiya teaches nothing of the claimed method wherein the fiber bundle layer is stacked with the fiber bundle layer of reinforcing fiber bundles together with the thermoplastic resin fiber, as recited in claim 7. Further, Tsuchiya teaches nothing of the claimed method wherein the fiber bundle layers stacked in layers are bonded to each other with the thermoplastic resin fiber, as recited in claim 7. In view of the foregoing, applicants urge that the nonwoven fabric of Tsuchiya is fundamentally different from the nonwoven fabric produced by the method of claim 7. Of course, the method for producing the nonwoven fabric of Tsuchiya is also quite different from the claimed method.

Sasaki

Similarly to JP' 626, Sasaki does not suggest the present claims. Sasaki teaches nothing of use of the thermoplastic resin fiber for bonding the fiber bundle layers to each other. Sasaki teaches the binding by a hot-melt or emulsion type binder, as described in column 5, lines 19 to 30.

Therefore, the combination of JP '626, Tsuchiya and Sasaki do not teach or even suggest that the present claims. Moreover, this combination of references does not suggest the superior properties of the presenting invention described at page 29, line 22 to page 31, line 17 of specification. For instance, because the fiber bundles are bonded to each other with the thermoplastic resin fibers, impregnation with matrix resin is satisfactorily conducted, and both of thermosetting and thermoplastic resins can be employed. The content of the reinforcing nonwoven fibers can be increased, and the resulting nonwoven fabric is excellent in mechanical characteristics. In addition, because the nonwoven fiber bundles are merely laminated and bonded to each other with the thermoplastic resin fibers, the resulting nonwoven fabric is extremely flexible and superior in form.

In view of the above discussions, applicants urge that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the application.

Respectfully submitted,

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Date

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